

Abstract of the Disclosure

A method of gasifying large molecular weight organic materials (carbonaceous compounds) such as coal, shredded waste tire or waste oil into gaseous fuel, carbon monoxide and hydrogen, and an apparatus therefore are provided. The method
5 comprises the steps of supplying initial fuel gas and oxygen into a gasification reactor to produce water and carbon dioxide, supplying the organic materials into the reactor and reacting them with the water and carbon dioxide to produce carbon monoxide and hydrogen gas, discharging the carbon monoxide and hydrogen gas from the reactor, recycling a part of the carbon monoxide and hydrogen gas discharged from the reactor
10 into the reactor, and reacting the carbon monoxide and hydrogen gas supplied into the reactor with oxygen to produce water and carbon dioxide. The method facilitates the control of temperature in the gasification reactor as well as produces fuel gas of high quality by increasing the concentration of hydrogen.